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OCTROOIEN	-	BREVETS
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ADVIEZEN	-	AVIS

A-14366

## TECHNICAL NOTE

OPPOSITION EP 0.698.162 B1

FACTS - GROUNDS - ARGUMENTS

BELGIAN AND EUROPEAN PATENT ATTORNEYS — BENELUX AND EUROPEAN TRADEMARK ATTORNEYS

BANKEN-BANQUES: BBL 320-0007538-42 • KB 409-8513001-77 • CL 610-0023220-31 • PCR-CCP 000-0278395-05 • HRA/RCA 25 541 • BTW/TVA  
BE 400.528.855

RECEIVED TIME . MAR 9 2.18AM

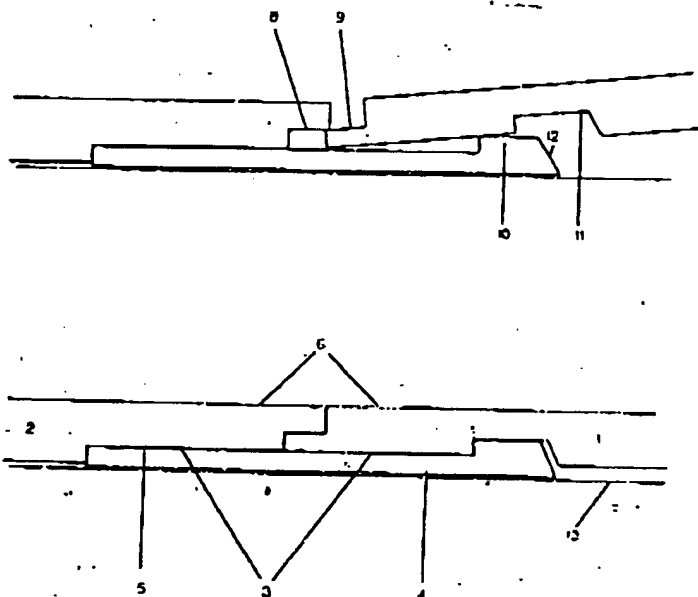
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## I. INTRODUCTION

### 1.1. Background and subject of the patent protection conferred by EP 0.698.162

At May 10th, 1993, a first patent application was filed in Sweden by VÄLINGE ALUMINIUM AB (application No.9301595-6) which related to panels for floors.

In this application, exclusively separate strips were used which are provided at the rear side of the panels and which allow that the panels are connected to each other at their edges. In the patent application, several possibilities were described, amongst which also a mechanical coupling which provides in a locking in vertical as well as in horizontal direction, as represented below:

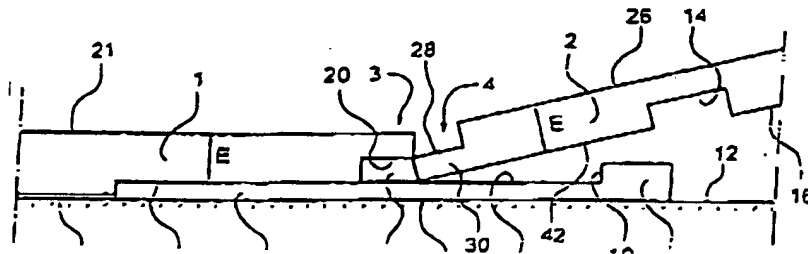


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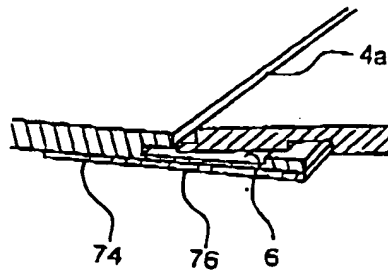
At April 29th, 1994, an international patent application on the name of VÄLINGE ALUMINIUM AB was filed, from which the European Patent EP 0.698.162 originated.

In this international patent application, which was published under the No. WO 94/26999, substantially two different forms of embodiment were described, namely:

1. a coupling using a separate strip which is fixed at each panel concerned, as represented below:



2. a coupling using a strip which is realized integrally with the panel, whereby, however, a separate strip 74 is provided under the strip 6, as represented below:

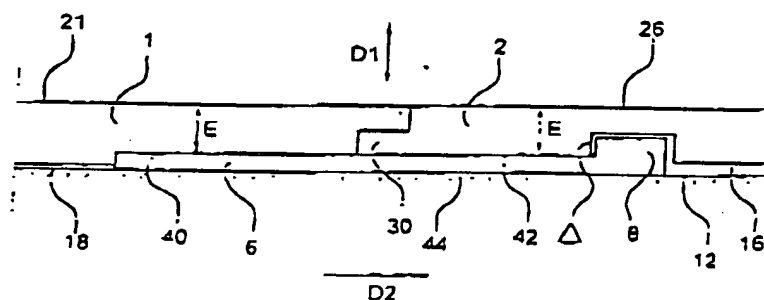


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According to VÄLINGE ALUMINIUM AB, the patent application also relates to embodiments in which the strip 6 is realized in one piece with the panel, without the aforementioned strip 74 being present.

With this, as set forth further on, it can not be agreed.

In any case, irrespective of the preceding, an important aspect in this international patent application (WO 94/26999) consists in that in between the locking surfaces which provide for the horizontal locking, always an outspoken play has to be present. This play (indicated by Delta in the following figure) forms an essential characteristic of the main claim and thus unambiguously forms a restriction which limits the extent of protection of the European patent No. 0.698.162 resulting therefrom.



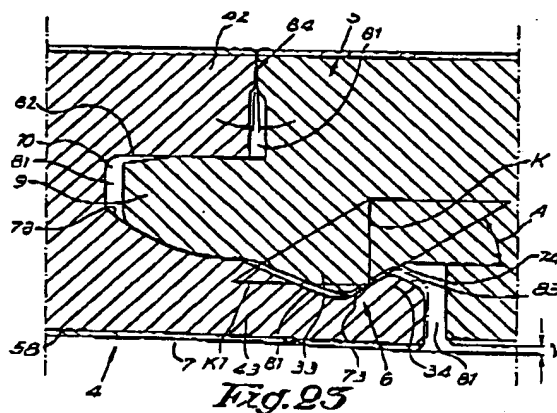
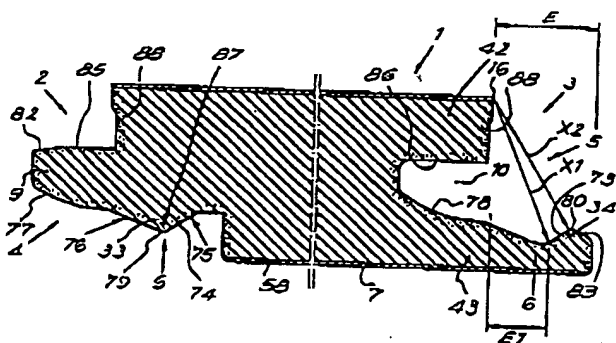
VÄLINGE ALUMINIUM AB has granted licenses to the company FIBO TRESPO for a product which is derived from the aforementioned alleged invention, which product is commercialized under the name ALLOC.

The ALLOC system, in fact, relates to laminate floorings and uses aluminium strips for the couplings between the panels. Practice has shown that this product basically has little success in relation to the total turnover of laminate floorings.

## I.2. The UNICLIC system

In the year 1996, the company UNILIN developed an own product for which, by the way, patent protection has been applied for in the name of UNILIN BEHEER BV - The Netherlands, and which is commercialized by the company UNILIN DECOR NV from Belgium under the trademark UNICLIC.

The UNICLIC system is designed in such a manner that separate strips are no longer necessary and that the play necessary in the VALINGE patent could be excluded, as illustrated below:



Right from the start, the UNICLIC system had an enormous success on the market.

## II. REASONS FOR OPPOSITION

From the moment when the UNICLIC system started to prove its success, the company VÄLINGE ALUMINIUM AB took all kinds of steps in order to still alter and broaden their patent protection, in particular, in order to obtain that, amongst others, the aforementioned play might be removed from the patent protection in order to also be able to claim patent rights against the UNICLIC system.

The European granting procedure has shown that this broadening is unacceptable, which, in fact, means that coupling systems which do not apply the aforementioned play, are not within the scope of the European patent No. 0.698.162.

In consideration of the fact that VÄLINGE ALUMINIUM AB, regardless of the decision of the European Patent Office, still maintain their point of view that the UNICLIC system represents a copy of the European patent No. 0.698.162, and illegally intimidate the distributors of the UNICLIC system, the only solution is to take actions which establish that the European patent No. 0.698.162 is invalid, at least to that extent as it relates to floor panels whereby the strip is realized integrally with the panel and, on the other hand, to request the authorized courts for a judgement on the alleged infringement which, according to VÄLINGE ALUMINIUM AB, is exerted by the UNICLIC system on the rights resulting from the European patent EP 0.698.162.

This opposition forms part of these actions.

### III. APPLIED DOCUMENTS

The documents to which is referred in the following argumentation and preceding introduction are represented in the following list:

#### Documents referring to the state of the art ( copy enclosed)

- |                |                           |
|----------------|---------------------------|
| - BE 417.526   | - GB 2.243.381            |
| - CH 200.949   | - GB 2.256.023            |
| - DE 15.34.278 | - JP 54-65528             |
| - DE 25.02.992 | - JP 57-119056            |
| - DE 26.16.077 | - JP 31-69967             |
| - DE 29.17.025 | - US 753.791              |
| - DE 30.41.781 | - US 1.124.228            |
| - DE 35.12.204 | - US 3.310.919            |
| - DE 35.44.845 | - US 3.538.665            |
| - DE 42.15.273 | - US 3.694.983            |
| - DE 7102476   | - US 3.859.000            |
| - DE 7402354   | - US 4.426.820            |
| - DE 8604004   | - US 4.769.963            |
| - FR 1.293.043 | - US 5.295.341            |
| - FR 2.568.295 | - WO 84/02155             |
| - GB 424.057   | - WO 93/13280             |
| - GB 1.430.423 | - WEBSTER'S, p.862, 1992, |
| - GB 2.117.813 | PAMCO Publ.Comp.Inc.(NY)  |

#### Other documents ( no copy enclosed )

- WO 94/26999 ( Internat. patent appl. of VÄLINGE)
- SE 9301595-6 ( priority application of VÄLINGE)
- WO 97/47834 (Internat. patent appl. for UNICLIC system)
- Examination report from October, 31st, 1997, from granting procedure of European patent EP 0.698.162 (VÄLINGE)



#### IV. VALIDITY

As will become clear from the following elucidation, the European patent EP 0.698.162 has to be considered invalid.

#### IV. Grounds for invalidity

In this case, the following grounds for invalidity, opposition, respectively, are applicable:

IV.1.1. The subject of the European patent is not based on the contents of the patent application as filed and, consequently, does not comply to article 123 of the European Patent Convention.

IV.1.2. The subject of the patent is non-patentable due to lack of novelty and inventivity and therefore does not comply to articles 52(1), 54 and 56 of the European Patent Convention.

IV.1.3. In certain aspects, the subject of the patent is not described sufficiently clear in order to be realized by a skilled person.

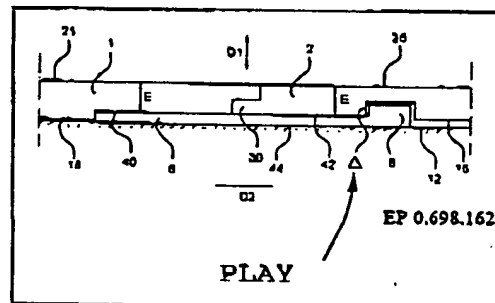
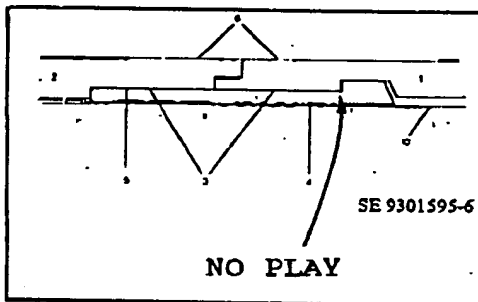
#### IV.2. Preceding observation

The contents of the international patent application from which the European patent EP 0.698.162 originated, differs from the contents of the Swedish patent application SE 9301595-6 from which priority is claimed in such a manner that this latter does not provide a valid priority.

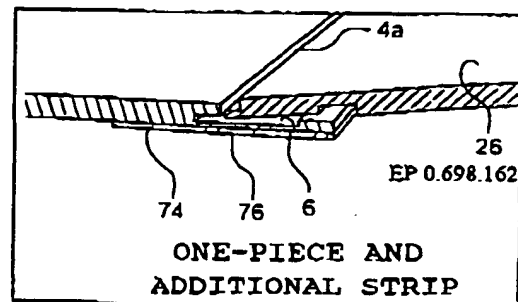
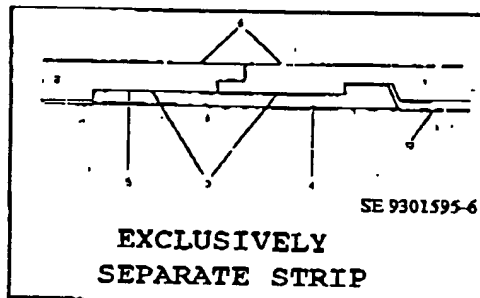
More particularly, no valid priority can be claimed for the following two reasons:

- 1) The contents of claim 1, of the international patent application WO 94/26999 as well as of the corresponding

European patent No. 0.698.162, is limited to embodiments whereby an distinct play exists between the locking surfaces of the panels, more particularly between the locking surfaces which prevent the panels from shifting apart horizontally. The application of such play is in no way described or represented in the priority document SE 9301595-6. There is no doubt that it is not possible to claim any priority for embodiments in which such play indeed exists, in other words, for all embodiments to which the claims of the European patent EP 0.698.162 relate.



2) According to the present claims, in particular claim 14, the European patent No. 0.698.162 also relates to embodiments whereby the strip 6 is made in one piece with the panel. In case that the claims remain unaltered, it should be noted that in the priority document exclusively the application of a separate strip which is fixed at the panel is mentioned, and that no valid priority can be claimed for embodiments whereby the strip is made in one piece with the panel.



10.

Thus, the filing date of the international patent application, namely, April 29th, 1994, is applicable as the valid priority date of the European patent No. 0.698.162.

This means that as "state of the art", all publications come into consideration which date from before April 29th, 1994.

#### IV. Grounds and arguments

The grounds and arguments showing that the European patent No. 0.698.162 in fact is invalid will be explained hereafter per claim in detail.

#### Claim 1:

##### a) Contents of claim 1

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In claim 1, in concise manner protection is sought for a system for providing a joint along adjacent joint edges (3,4) of two building panels (1, 2), especially floor panels,

a) whereby a first mechanical connection is formed in a first direction D1 perpendicular to the plane of the panels;

b) whereby on the rear side (18, 16) of the panels, a locking device is provided forming a second mechanical connection in a direction D2 parallel to the plane of the panels and perpendicular to the joint edges (3,4), which locking device comprises a locking groove (14) which extends in a parallel manner to the joint edge (4) of one of the panels and which is open at the rear side;

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characterized in that:

c) the locking device (6,8,14) further comprises a strip (6) which is integrated with the other panel (1), which strip extends over the substantially the entire length of the connected edge (3) and is provided with a locking element (8) projecting from the strip (6) in such a manner that, when the panels are connected to each other, the strip (6) projects on the rear side of the other panel (2), whereby the locking element (8) is received in the locking groove (14);

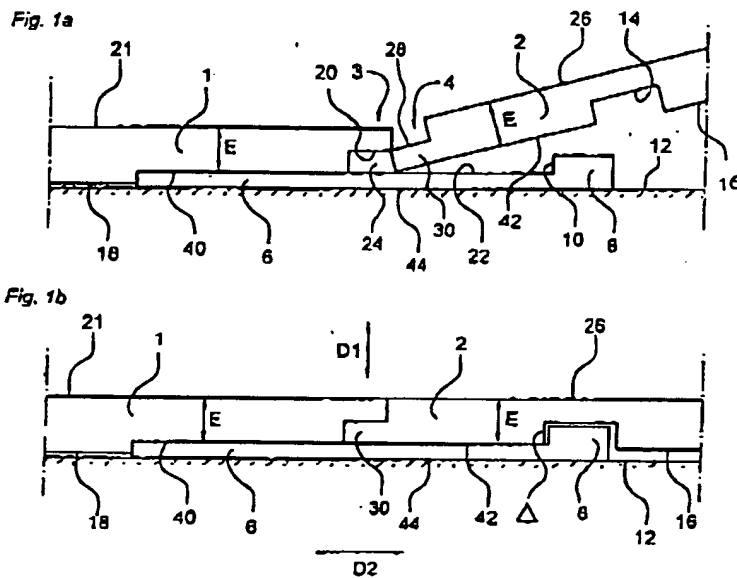
d) that the panels, when connected to each other, can take a relative position in the second direction D2, whereby a play (Delta) between the locking groove (14) and a locking surface (10) of the locking element (8) exists, which play is operative in the aforementioned second mechanical connection;

e) that the first and second mechanical connection allow for a mutual displacement of the panels (1,2) in the direction of the edges;

f) that the second mechanical connection is designed in such a way that the locking element (8) can leave the locking groove (14) when the panel with the groove is turned about its joint edge.

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The aforementioned characteristics are visible in the following copy of figures 1a and 1b of the patent concerned.



#### b) Meaning of the term "integrated"

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During the granting procedure of the patent, the patent proprietor added, amongst others, claim 14 which refers to claim 1 and in which it is said that the strip 6 is made "integrally", more particularly in one piece, with the rest of the panel.

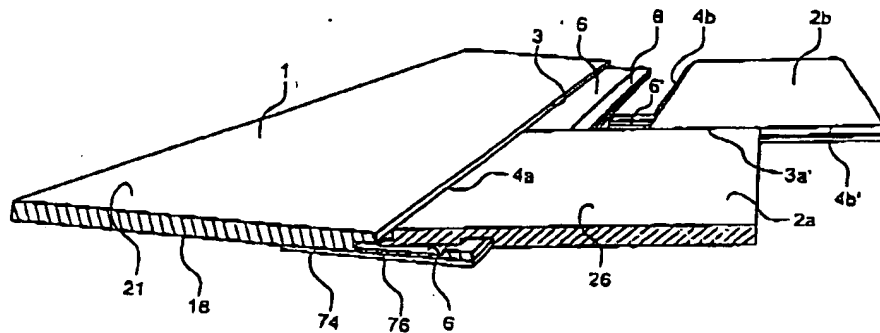
In consideration of the fact that claim 14 refers to claim 1, the patent proprietor indicates that, in their opinion, claim 1 also relates to all kinds of forms of embodiments, whereby the strip 6 is made in one piece with the panel (this opinion is also expressed by the patent proprietor in their correspondence

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with UNILIN DECOR N.V.).

As will become evident from the further elucidation when discussing claim 14, the European patent can only relate to embodiments whereby the strip 6 is integral, as far as this strip 6 then is also reinforced further by an additional strip 74, as illustrated in figure 5 (see copy here below).

Fig. 5



Although claim 1, thus, in fact does not relate to forms of embodiment whereby the strip 6 is made in one piece with the panel, which forms do not have an additional strip 74, the patent proprietor, however, denying this; hereafter, for completeness' sake, the lack of novelty and inventivity of both forms of embodiments is described.

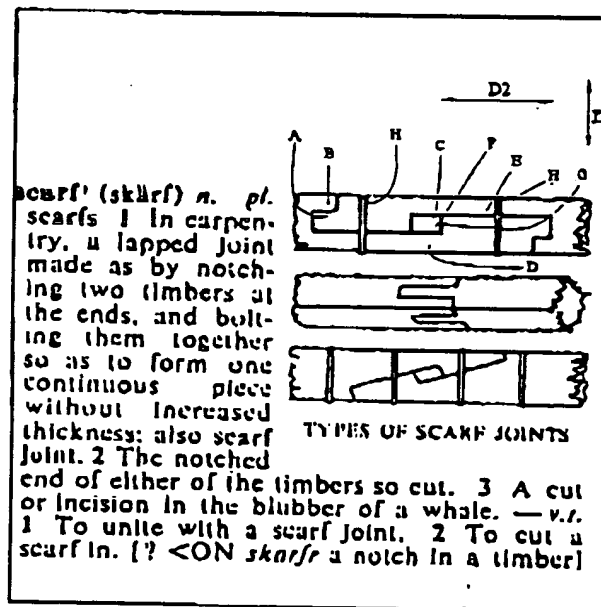
14

c) Reasons for invalidity in the case that claim 1 relates to a strip which is made in one piece with the panel

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c.1. No novelty in view of WEBSTER'S

The connection between the panels, as claimed in claim 1 of EP 0.698.162, is not new, as all characteristics of such connection are known from a traditional, so-called "scarf" connection. To this aim, we refer to the uppermost illustration from WEBSTER'S, p. 862, 1992, PAMCO Publ.Comp.Inc.(N.Y.):



As indicated in the above figure, the coupling shows a first

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mechanical connection formed by the tongue A and the groove B which provide for a locking according to direction D1 (characteristic a).

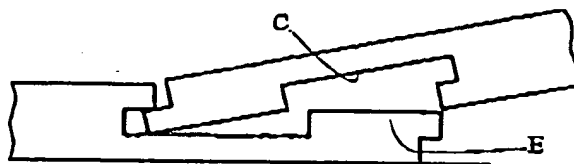
There is also a second mechanical connection, formed by a groove C which is open at its rear side, whereby a locking according to direction D2 is obtained (characteristic b).

The locking device also comprises a strip D with a projecting locking element E which is received in the groove C (characteristic c).

Furthermore, the represented "scarf" connection also shows the essential play F between the locking groove B and the locking surface G (characteristic d).

It is obvious that, as long as the connection elements H are not provided, the two mechanical connections also allow for a displacement in longitudinal direction (characteristic e).

Furthermore, the "scarf" connection is realized in such a way that the locking element E can leave the locking groove C when the panel showing the groove C is turned about its joint edge, as illustrated here below.



From the preceding, it becomes obvious that the connection, as claimed in claim 1 of the European patent EP 0.698.162, is



nothing but a trivial connection which, at the day of the filing of this patent, namely, April 29th, 1994, has already been widely known for the connection of all kinds of wooden constructions (timber), in other words, wooden "building panels", too.

C.2. No novelty in view of DE 2.917.025

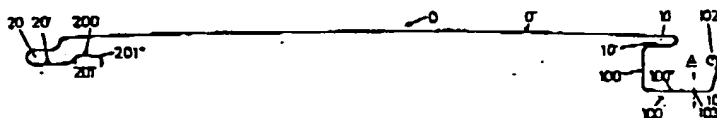
In the document DE 2.917.025, panels are described which can be disconnected from each other.

The description on pages 3 and 4 of said document is worded as follows:

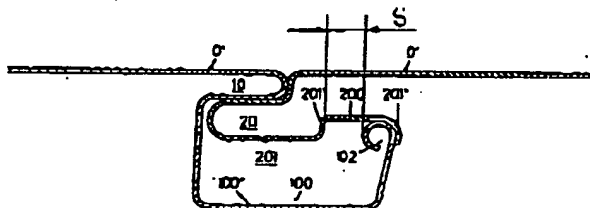
"Dies wird nach der Erfindung dadurch erreicht, daß zu einer lösbaren Paneelenverbindung geeignete und im Breitenverband vereinigbare Paneele mit Profilleisten im Bereich gegenüberliegender Randflächen durch eine solche Gestaltung der Profilleisten gekennzeichnet sind, daß sie im Querschnitt gesehen unterhalb einer bündig an die Paneeloberfläche anschließenden Nase einen in Längsrichtung der Nase über diese hinaus hervorragenden Spannhaken aufweisen (Profilleistengestaltung (A)) bzw. unterhalb einer von der Paneeloberfläche abgesetzten Gegennase für den Eingriff eines Spannhakens eine Einraststrecke mit im Abstand voneinander angeordneten Anschlägen aufweisen, zwischen denen ein eingerasteter Spannhaken als Gegenanschlag unter zumindest teilweiser Überlappung der Nasen in Längsrichtung der Nasen verschiebbar ist (Profilleistengestaltung (B)), - wobei zum Breitenverband verbunden werden können entweder Paneele mit der Profilleistengestaltung (A, B) oder solche mit der Profilleistengestaltung (A, B) und (B, B) oder solche mit einer Profilleistengestaltung (A, B) und (A, A) oder solche mit einer Profilleistengestaltung (B, A) und (B, B) und solche mit einer Profilleistengestaltung (A, A), (B, B) und (A, B)."

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When a coupling is realized according to this description, a coupling is obtained showing exactly all characteristics of claim 1 of EP 0.698.162. More particularly, a panel is obtained looking as represented here below.

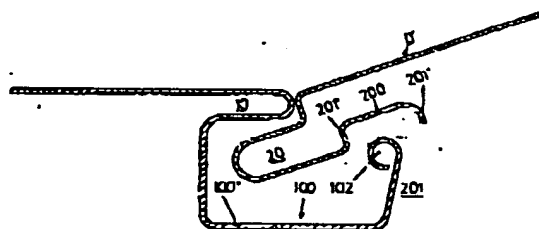


The coupling then is as follows:



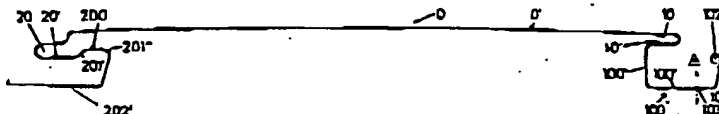
It is evident that this coupling shows all aforementioned characteristics a to f. Summarized, thus, also a locking in two directions is obtained, whereas also a play, here above indicated by S, is present.

The panels can be mutually uncoupled by means of a rotational movement, analogous to the description in the aforementioned characteristic f:



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In the figures of document DE 29.17.025, the panels also have a flange 202', as represented here below:



It is noted that this flange 202' is not mentioned in the aforesaid description and therefore is optional. This is confirmed by the description on page 4, last paragraph but one: "Weiterbildungen der Erfindung nach Anspruch 1 ergeben sich aus den Ansprüchen 2 bis 8", as well as by the contents of claim 3 in which is said that the part 200 is located in a recess (Tasche 201).

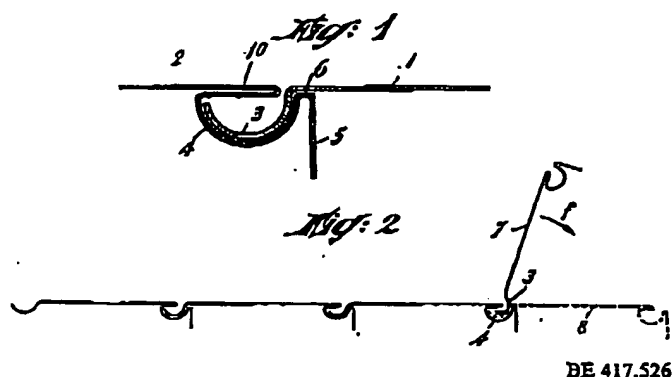
From this, it is obvious that the presence of this recess 201, and therefore also of the flange 202', is only a so-called "Weiterbildung", in other words, a preferred characteristic which is not necessarily present.

In consideration of the fact that the coupling of the European patent EP 0.698.162 is not limited to floor panels, but generally relates to all kinds of building panels, and even wall panels (see description column 1, lines 24 to 27: "It should however be emphasised that the invention is useful also for joining ordinary wooden floors as well as other types of building panels, such as wall panels and roof slabs."), it is evident that the document DE 2.917.025 represents a relevant anticipation belonging to the same technical field.

Summarized, it can be stated that the system, as described in claim 1 of EP 0.698.162, does not comply with the legal requirements of novelty with which an invention has to comply in order to be patentable.

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Note: a similar coupling is also known from the patent document BE 417.526.



Hereby, it is referred to the fact that the panels described in the Belgian patent No. 417.526 can also be applied for "planchers" (see claim 6), in other words, for floors.

C.3. The invention is not new in view of DE 7402354

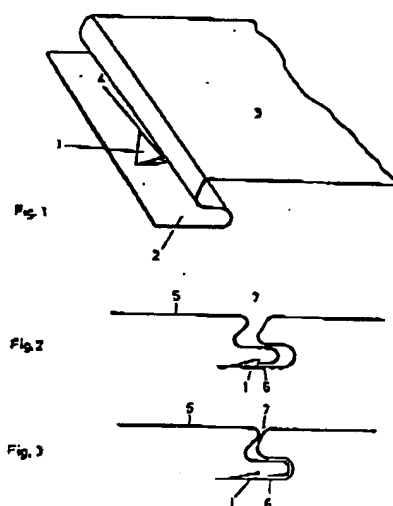
The panels represented in the German utility model No. 7402354 relate to disconnectable panels which are mutually coupled by means of an edge connection showing all characteristics claimed in claim 1 of the European patent No. 0.698.162.

It is noted that the document DE 7402354 relates to facade panels, in other words, wall panels, and consequently is a document from the same technical field as EP 0.698.162 as, as presumed in this latter (see column 1, lines 24 to 27), this

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latter also relates to wall panels.

For the analysis following hereafter and the comparison of the characteristics, we refer to the copy of figures 1 to 3 of DE 7402354 here below.

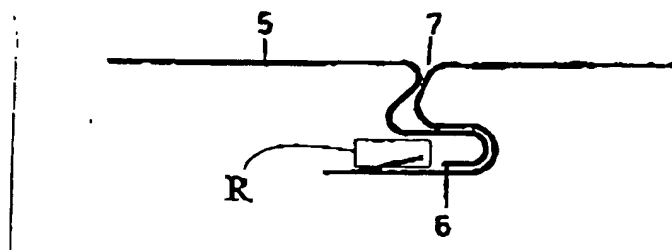


In greater detail, the following can be said in respect to the aforementioned characteristics a to f:

**Characteristic a:** the vertical locking is obtained by means of a classical tongue and groove.

**Characteristic b:** the parts 1 and the edge 6 together form a locking device with which a locking in horizontal direction is obtained, as the edge 6 is blocked behind the parts 1. It is noted that the space R indicated here below in fact also forms a groove at the rear side of the panel 5.

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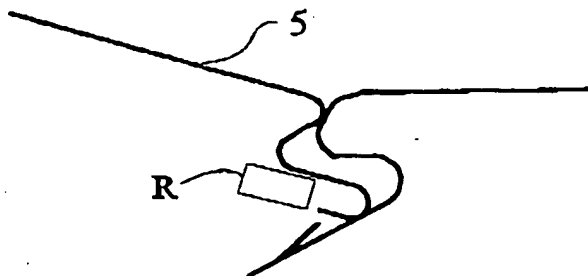
Characteristic c: flange 2 also forms a continuous strip, whereas the part 1 forms a protruding locking element fitting into the groove which is formed by the space R. In coupled condition, the flange 2 also extends along the rear side of the panel 5.

Characteristic d: figure 3 clearly represents that there is also a play between the locking surface of the element 1 and the edge 6.

Characteristic e: in consideration of the fact that the profiles of the edge 6 and the flange 2 extend in longitudinal direction, it is evident that the coupled panels according to DE 7402354 can also be shifted in the longitudinal direction of the joint.

Characteristic f: the figure here below shows that, when turning the panel 5, it is also possible to obtain that the part 1 leaves the aforementioned space R and an unlocking is obtained.

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Claim 1 of EP 0.698.162 thus does not comply with the stated requirement of novelty.

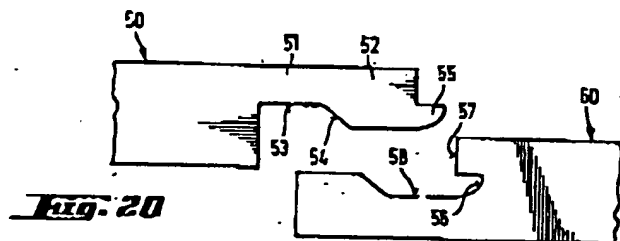
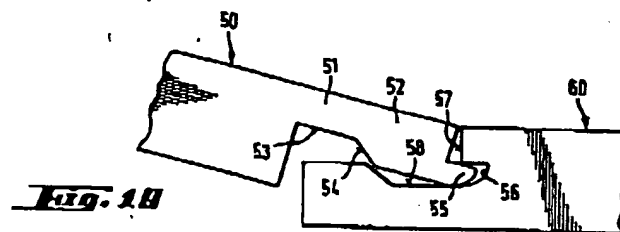
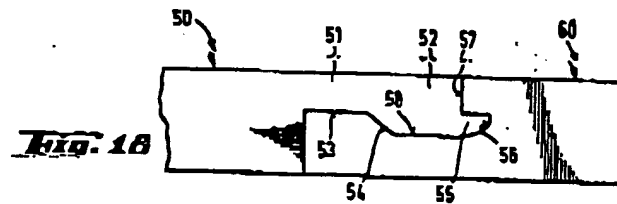
C.4. Claim 1 is not inventive, starting from the state of the art known from US 4.426.820

In the case that the patent proprietor still should be of the opinion that their patent also covers forms of embodiment in which the strip 6 is made in one piece with the rest of the panel (and without using an additional strip 74), it is obvious that a building panel, more particularly, a floor element, showing almost all characteristics named in claim 1, is also known from the state of the art described in the American patent No. 4.426.820.

It is noted that US 4.426.820 is a document which, by the patent attorneys of VÄLINGE ALUMINIUM AB by means of a letter dated November 19th, 1998, has been brought to the knowledge of the European examiner handling the European patent application of the UNICLIC system.

In fact, US 4.426.820 is little relevant in respect to anticipation for the UNICLIC system; it is, however, particularly relevant in respect to anticipation for various claims of the VÄLINGE patent EP 0.698.162.

To this end, it is referred, for example, to figures 18 to 20 of the aforementioned American patent, a copy of which figures is represented here below:



US 4.426.820

The American patent US 4.426.820 relates to panels intended for forming a floor and consequently is situated in the same technical field as the VÄLINGE patent EP 0.698.162.



A comparison with the aforementioned characteristics teaches us the following:

Characteristic a: the vertical locking is obtained by means of a tongue 55 fitting into a groove 56.

Characteristic b: the groove 53 and the part of the panel 60 cooperating therewith together form a locking device at the rear side of the panels, as a result of which a locking in horizontal direction is obtained. Hereby, the upstanding part of the panel 60 forms a locking element, identical to the locking element 8 of the VALINGE patent. The part 53 forms a locking groove which also is open at the rear side.

Characteristic c: the part situated under the plane 58 is flat and has a constant thickness and consequently forms a strip. This strip also extends over the complete length, and the locking element at the end of this strip is received in the groove 53 in coupled condition.

Characteristic d: the coupling known from US 4.426.820, however, does not show characteristic d, in other words, does not have any play which allows for the panels to assume a different relative position in the horizontal direction.

Characteristic e: as the edge profiles extend over the complete length, it is evident that the panels can be mutually shifted in the longitudinal direction. As the panels furthermore are made of synthetics, it is evident that the profiles have smooth surfaces, as a result of which their shifting doubtless is possible.

Characteristic f: in this case, the second mechanical connection is realized in such a manner that the locking element can leave the locking groove when the panel with the groove is turned along its joint edge, which can be derived unambiguously from figure 19, represented here above.

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From the aforementioned comparison, it becomes clear that the coupling known from the American patent US 4.426.820 differs from the coupling from claim 1 of the VÄLINGE patents EP 0.698.162 only in that no play is present.

However, it is obvious that, if one desires to obtain that the panels fit into each other more easily and that it becomes easier to shift them in mutual respect, one will realize the coupling more loosely by providing a play at one or more locations. Therefore, the fact that a play is applied, as defined in the aforementioned characteristic d of claim 1, cannot be considered an inventive step.

c.5. Claim 1 is not inventive, starting from the state of the art known from GB 2.256.023

In case that the patent proprietor still should be of the opinion that their patent also relates to forms of embodiment in which the strip 6 is realized in one piece with the rest of the panel (and without applying an additional strip 74), it is obvious that a building panel, more particularly, a floor panel, which shows practically all characteristics claimed in claim 1, also is known from the state of the art described in the British patent application GB 2.256.023.

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From the document GB 2.256.023, as visible in the copy of figures 4 and 5 following below, a coupling for panels is known which also provides for a mechanical connection in two directions, corresponding to the aforementioned directions D1 and D2. According to said document, this coupling can also be applied with floor elements, to which end we refer to the last three lines of the description on page 7: "...such as flooring, cladding of walls or ceilings or even the construction of sheds or the like", and, consequently, is also situated in the same technical field.

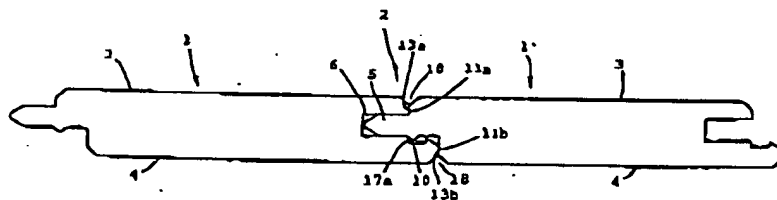


FIGURE 4.

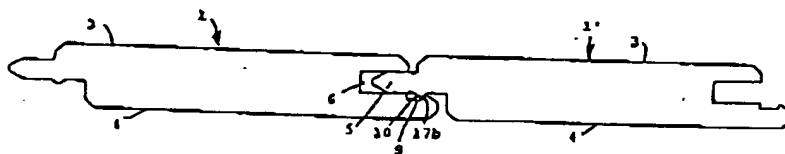


FIGURE 5.

At the underside of the panels described in GB 2.256.023, a protruding lip is provided having a groove at its extremity which groove is limited by an upstanding part 17b, whereby this upstanding part 17b engages in a locking groove of this other panel, which locking groove is formed by the space present between the protrusion 10 and the side 11b.

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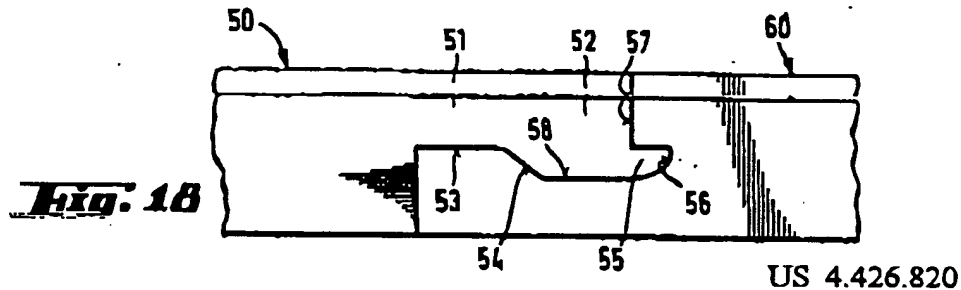
Thus, this protruding lip can be compared to the strip 6 described in claim 1. The only difference consists in that the locking element in the document GB 2.256.023 does not project from the strip 6, but in fact is formed by a part situated in the plane 6 of the strip.

The fact that according to EP 0.698.162, use is made of a locking element 8 projecting from the strip 6 in upward direction, instead of a locking element 17b created by a recess in the strip, cannot be considered an inventive step. As indicated in the following figure, it is, anyhow, within the knowledge of any skilled person to design the locking part higher, as a result of which the groove 9 can be omitted.



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Moreover, couplings having a strip with an upstanding portion are well known in themselves, amongst others, from the aforementioned document US 4.426.820:



The essential play (Delta) can also be found in the coupling known from GB 2.256.023. This play is visible in figures 4 and 5:

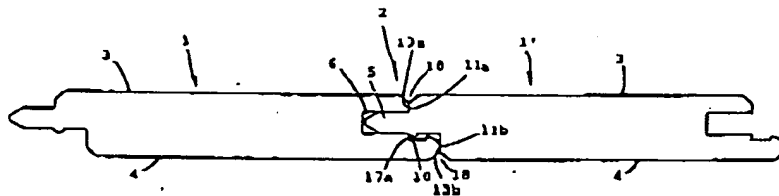


FIGURE 4.

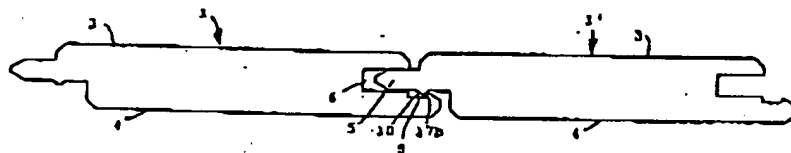


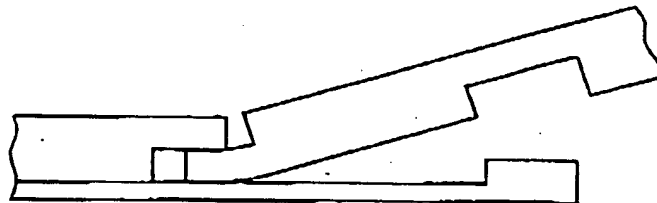
FIGURE 5.

Due to this play, two panels coupled to each other may take different positions in respect to each other, as is also evident in figures 4 and 5.

The second mechanical connection of GB 2.256.023 shows a similar design as the one of the contested patent. Thus, it is obvious that the panels of GB 2.256.023 can be taken apart by a turning motion, in a similar way as in the VÄLINGE patent.

In view of the fact that the form of embodiment represented in GB 2.256.023 has a similar design as the embodiment of figure 1 of the European patent EP 0.698.162, it can be expected, anyhow, that the panels known from GB 2.256.023 also can be turned apart.

As represented here below, when taking apart the panels according to EP 0.698.162 a bending in the strip and/or the lip must take place, as otherwise it will not be possible to couple, respectively uncouple, the panels by means of a turning movement. Thus, there is no reason why, in the case of an embodiment according to EP 0.698.162, a turning apart indeed is possible, whereas this should not be possible in the embodiment of GB 2.256.023.



VÄLINGE patent

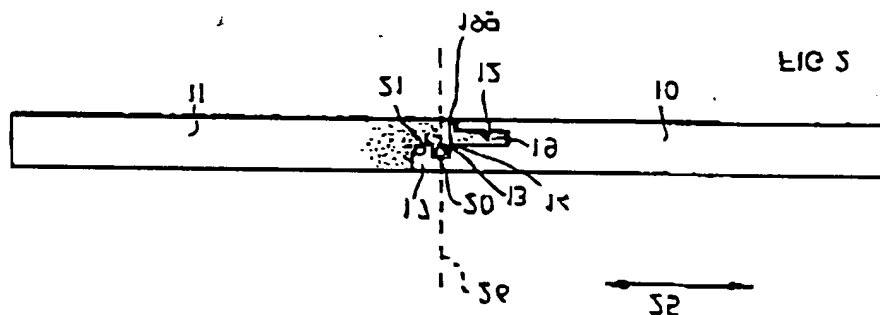
From the preceding, it is unambiguously evident that, in case the patent proprietor still should be of the opinion that their patent relates to forms of embodiment whereby the strip 6 is

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made in one piece with the panels, the invention claimed in claim 1 is not inventive in view of the state of the art known from GB 2.256.023 and, consequently, is no longer patentable.

It is noted that, starting from the patent document GB 1.430.423, a similar conclusion can be drawn, with the only difference that from this document, a coupling is known which does not show any play.

Indeed, in case that the coupling from the figures from GB 1.430.423 is applied upside down, a coupling is obtained which in many aspects corresponds to the coupling claimed in claim 1 of EP 0.698.162:



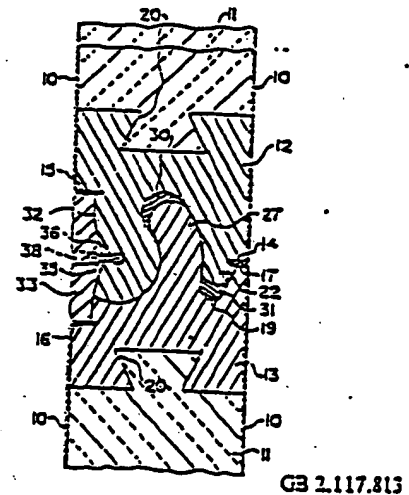
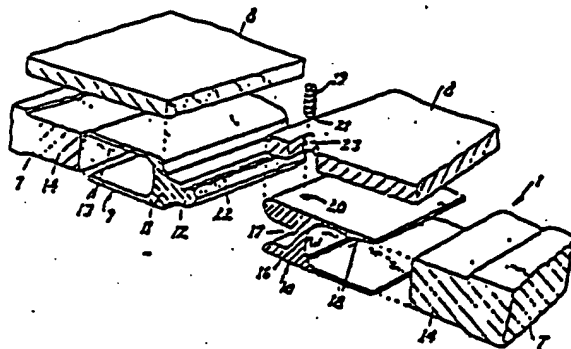
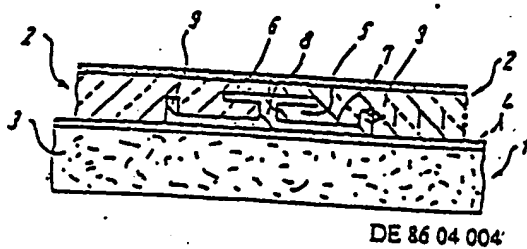
The only differences consist in that the part 17 does not project upward out of the strip and that no play is present between the locking surfaces of the part 17 and the locking groove 21.

d) Reasons for invalidity in the case that the strip in claim 1 consists of a separate element which is fixed at the panel

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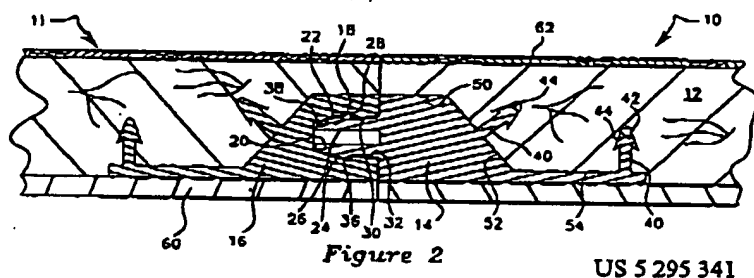
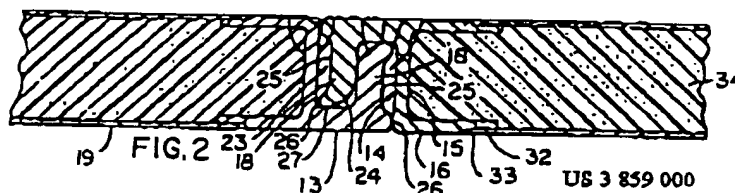
In case that the strip 6 is realized as a separate element, it has to be noted that it is generally known to couple panels by means of coupling parts in the form of a strip which is manufactured separately and is fixed to the panels.

Examples thereof are, amongst others, to be found in the documents DE 8604004, GB 2.117.813, US 3.310.919, US 3.859.000 and US 5.295.341:





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US 5 295 341

As a result, no inventive step can be seen in the fact that a separate strip 6 is used which is fixed at the panel. It is rather within the range of knowledge of a skilled person that in the panel represented in the documents US 4.426.820, GB 2.256.023 and GB 1.430.423, the protruding lip, analogous to the coupling parts described in the aforementioned five patents, also can be manufactured as a strip consisting of a separate material.

#### e) Other relevant documents in respect to claim 1

In respect to claim 1 is noted that in fact it is generally known that panels, more particularly floor elements, can be coupled to each other by means of couplings providing in a locking in two directions, as a result of which a glue-free connection is realized.

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Hereto, reference is made to the following documents (amongst which also the aforementioned):

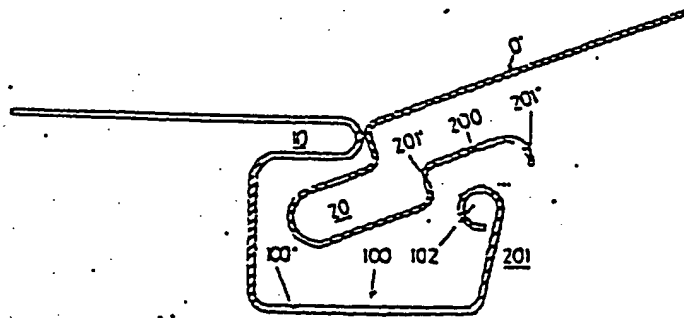
- BE 417.526
- DE 15.34.278
- DE 25.02.992
- DE 29.17.025
- DE 30.41.781
- DE 35.12.204
- DE 35.44.845
- DE 42.15.273
- DE 7102476
- DE 7402354
- DE 8604004
- FR 1.293.043
- GB 1.430.423
- GB 2.117.813
- GB 2.243.381
- GB 2.256.023
- JP 54-65528
- JP 57-119056
- JP 31-69967
- US 753.791
- US 1.124.228
- US 3.310.919
- US 3.694.983
- US 4.426.820
- US 4.769.963
- US 5.295.341
- WO 84/02155
- WO 93/13280

The large number of documents from which such couplings are known enables those skilled in the art to perform different combinations of characteristics, amongst which a large number of possibilities (starting from only two documents at a time) which lead to the combination of characteristics a to f of claim 1.

Claim 2

The characteristic of claim 2 states that the panels can be turned apart without the locking element 8 coming into contact with the locking surface of the groove 14.

This is also the case in the embodiment according to document DE 29.17.025. As represented here below, the tongue or nose 20 can be turned outward with the locking surface 201' moving freely along the locking element 102.



DE 29.17.025

Consequently, the characteristic of claim 1 is not new in view of the state of the art known from the patent document DE 29.17.025.

It is noted that in the embodiment according to GB 2.256.023, the panels, as aforesaid, also can be turned apart. Due to the relatively wide groove 9, it is evident that the protrusion 10 hereby can leave the groove 9 without coming into contact with the upstanding side 17b. According to document GB 2.256.023, thus a similar effect is obtained. Claim 2 therefore is not inventive.

Claim 3

In claim 3 is stated that the projecting locking element 8 projects maximally 2 mm out of the strip 6 in upward direction.

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Normally, it can be expected that the panels of GB 2.256.023 have a thickness varying between 0,8 and 2 cm (classical deal thickness), as a result of which it can be derived from the figures of GB 2.256.023 that the height of the locking surface 17b also is smaller than 2 mm.

Consequently, the characteristic of claim 1 is known in itself from GB 2.256.023 and thus, as claim 3 is depending on the claims 1 and 2, does not show any inventivity.

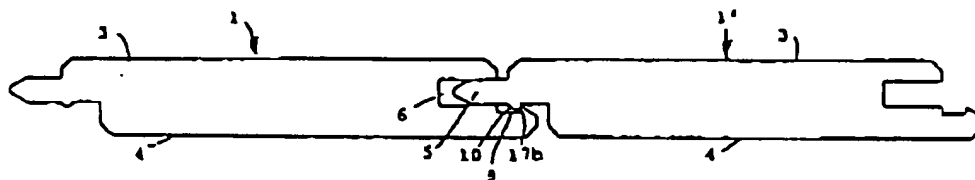
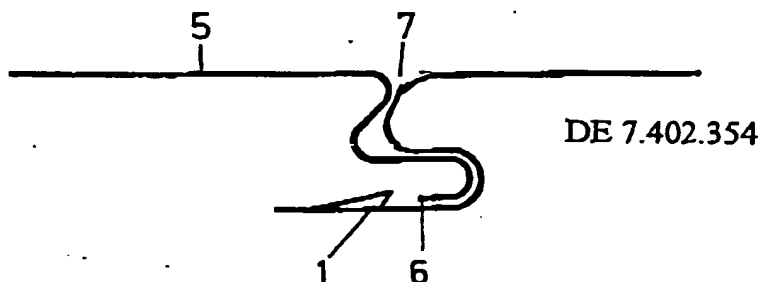


FIGURE 5.

GB 2.256.023

Claim 4

In claim 4 is stated that the first mechanical connection is formed by the edge 4 of a first panel, which edge engages between the edge 3 of the second panel and the front side (with which the upper side is intended) of the strip 6.

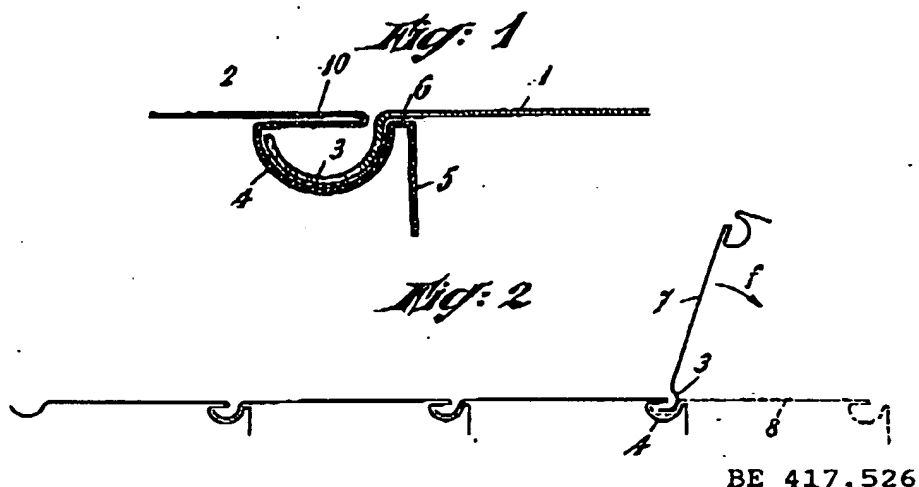


DE 7.402.354

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This characteristic in itself is known from DE 7.402.354 and, as it depends on the claims 1 and 3, the characteristic of claim 4 therefore also is no longer new.

Besides, this characteristic also is to be found in the coupling known from the document BE 417.526. As represented here below, the coupling part 3 is held between portion 10 and portion 4, as a result of which a locking in the first direction is obtained in an identical manner.



In the forms of embodiment of GB 2.256.023, the vertical locking is also obtained in that the tongue of the one panel engages between the walls of the groove of the other panel. Consequently, in view of GB 2.256.023 the characteristic of claim 4 neither is inventive.

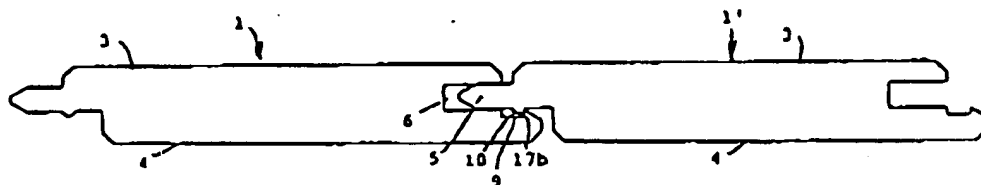
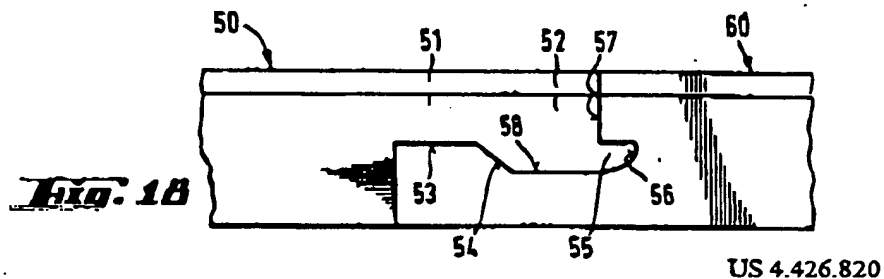


FIGURE 5.

GB 2.256.023

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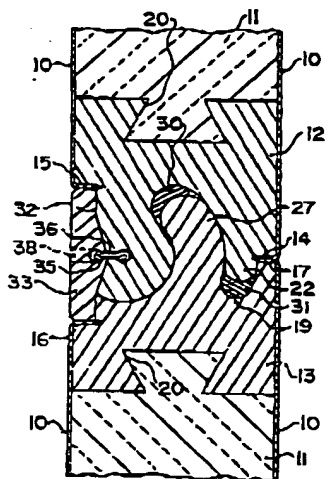
The same can be said starting from couplings known from US 4.426.820:



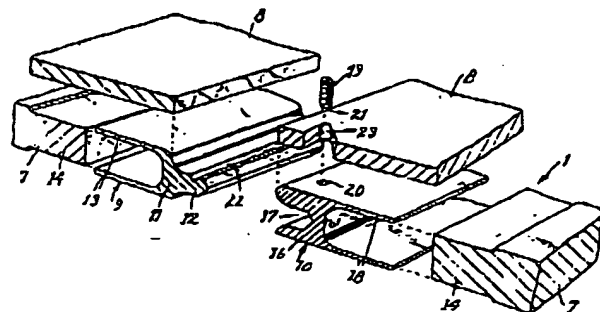
Claim 5

The characteristic according to claim 5 that the strip 6 is made from a material different from that of the rest of the panel and is already fixed at the panel during manufacturing, is not inventive in consideration of the fact that the application of coupling strips made from another material than the one of the panels to which they belong, already belongs to the state of the art for a long time, also in the case of floor elements.

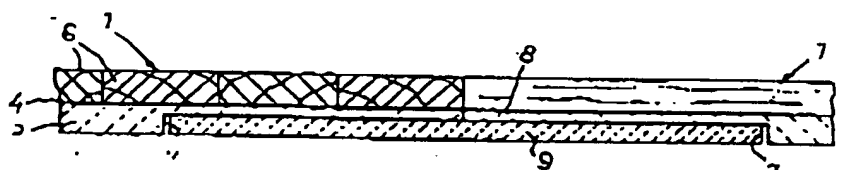
To this end, reference is made to the state of the art known from, amongst others, the patent documents GB 2.117.813, US 3.310.919, US 3.538.665, US 3.859.000 and US 5.295.341.



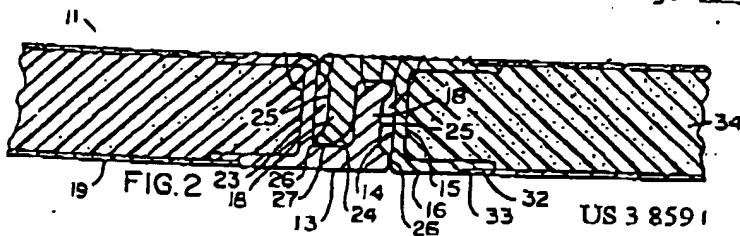
GB 2.117.813



US 3 310 919



US 3 538 665



US 3 859 000

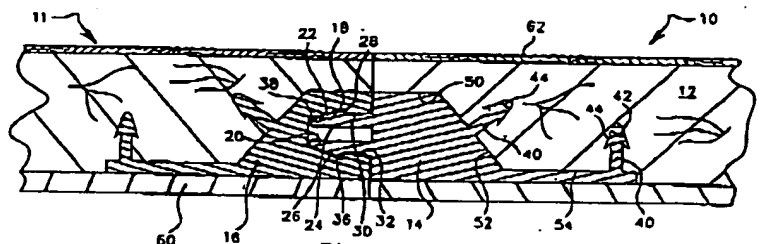


Figure 2

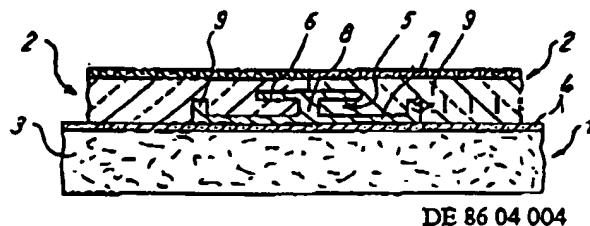
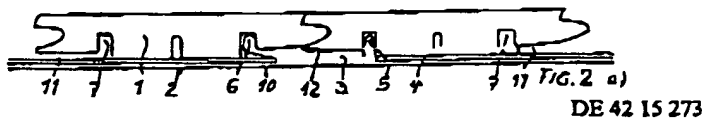
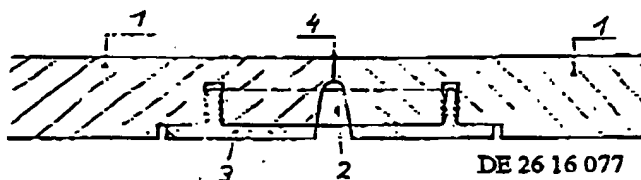
US 5 295 341

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Consequently, it is within the normal knowledge of a person skilled in the art to make use of a two-piece embodiment instead of the aforementioned one-piece embodiment, whereby the strip then consists of another material and is attached fixedly at the panel.

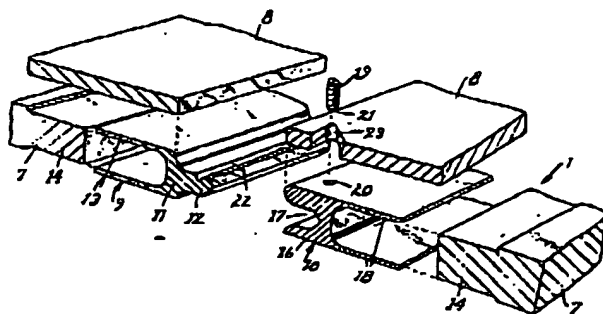
### Claim 6

That the strip 6 is taken up into a countersunk groove 40-42 at the rear side of the panel, neither is inventive in combination with the aforementioned. The application of joint elements countersunk into the rear side of the panel is, amongst others, known from the patent documents DE 26.16.077, DE 42.15.273, DE 86.04.004, US 3.310.919, US 3.538.665, US 3.859.000 and US 5.295.341, as becomes clear from the copies of the relevant figures of these documents represented here below.

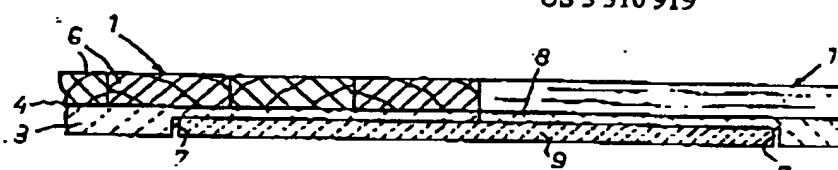




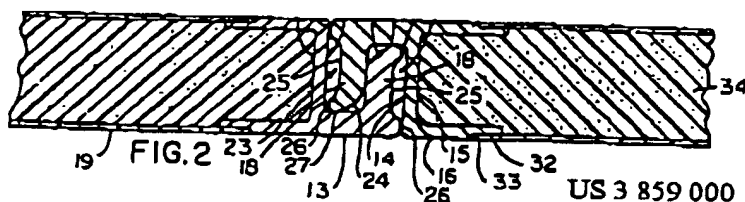
40



US 3 310 919



US 3 538 665



US 3 859 000

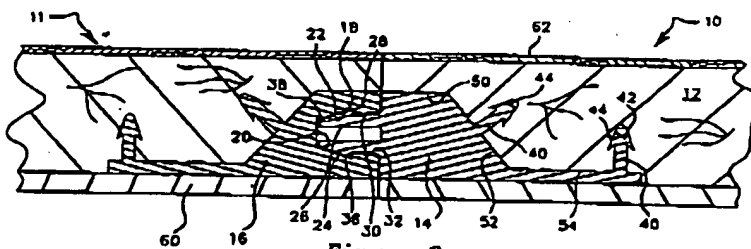


Figure 2

US 5 295 341

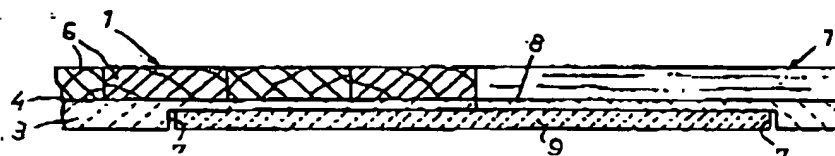
Consequently, this characteristic in itself is widely known from the state of the art. The combination with one of the characteristics of the preceding claim does not result in any

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special technical effect. Thus, there can not be spoken of any inventive step.

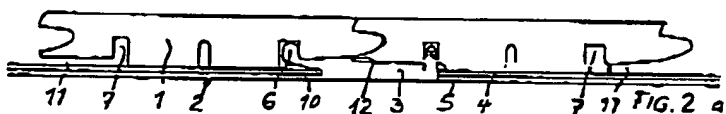
### Claims 7 and 8

The use of a so-called "equalising groove" neither shows any inventive step, this starting from the patent document US 3.538.665, pertaining to the state of the art, in which also use is made of a strip 6 which is provided in a recess at the rear side of the panel:



US 3 538 665

It is noted that also in the system known from the patent document DE 42.15.273, similar "equalising grooves" are applied.



DE 42 15 273

### Claim 9

Claim 9 states that the strip 6 is mechanically fixed at the panel.

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It is obvious that the fact that two mechanical parts can be fixed at each other also in a mechanical manner, is a trivial fact and consequently can not form an inventive characteristic.

Furthermore, the application of a coupling strip which is connected to the panel during manufacturing by realizing a mechanical engagement, is already known from US 5.295.341, whereby the mechanical locking is obtained by the barbs 42.

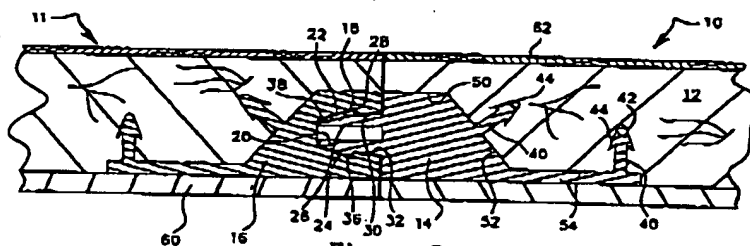


Figure 2

US 5 295 341

Claims 10, 11 and 12

The realization of an attachment by means of lips which are bent, or by means of glue is a well-established attachment technique for connecting mechanical parts.

The application thereof in the panels concerned for the attachment of the strip 6, thus, is trivial and not inventive.

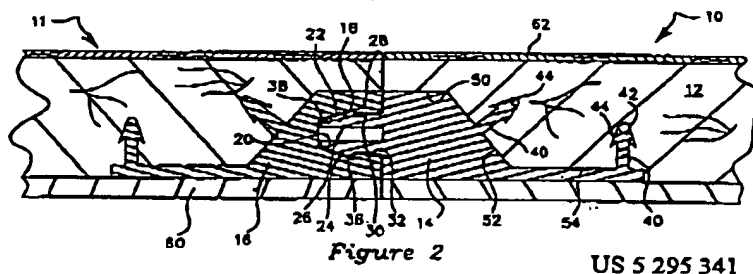
Claim 13

The fact that a strip 6 is applied made of a material differing from the material of the panel and that to this end a flexible material, more particularly, aluminium, is used, neither

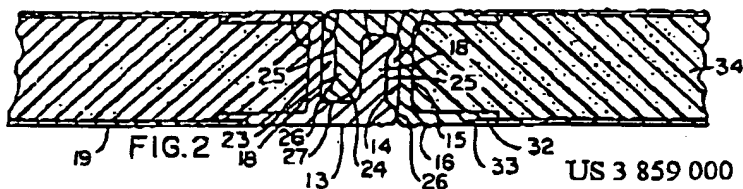
43

reveals any inventivity.

The application of a coupling strip of "flexible" material for connecting floor elements is known from the patent document US 5.295.341, where a coupling strip made of synthetic material is used:



On the other hand is it known from US 3.859.000 to apply "metal strips" which are fixed at panels made of another material:



Furthermore, it is known from the already mentioned documents DE 29.17.025 and DE 7402354 to manufacture the strip in one piece with the panel from a metal plate, such that also a "flexible metal strip" is obtained.

It is evident that the combination of the teachings of two or more of the aforementioned documents automatically leads to the characteristic of claim 13.

Claim 14

Claim 14 has been added during the granting procedure of the European patent.

According to this claim, protection is sought for the fact that the strip 6 is realized integrally, in other words, in one piece, with the panel.

The subject of this claim extends beyond the scope of the application, as originally filed, amongst others, for the reasons explained hereafter.

In the originally filed application is clearly defined that the aim of the invention consists in providing a coupling system for panels whereby the strength of the coupling is no longer limited by the strength of the material of the panel.

It is evident that, according to the originally filed description, this can be obtained only in two manners, namely:

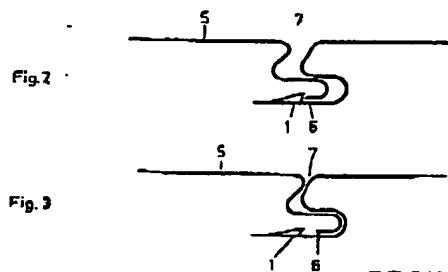
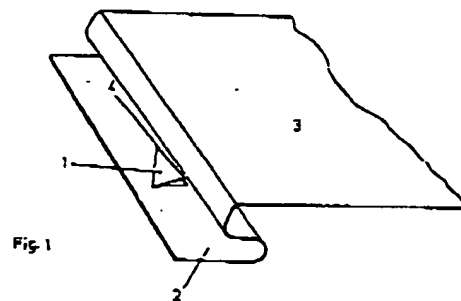
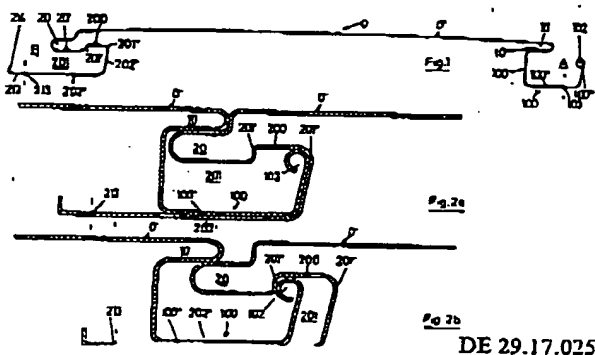
- a. by using a separate strip 6 made of another material which is more stable than the material of the panels themselves;
- b. by using, as represented in figure 5 of the patent, a strip 6 which is realized in one piece with the panel, however, in that case in fact is combined with an additional strip 74.

In other words can be said that each embodiment comprising a strip 6 which is made in one piece with the panel, whereby, however, no further separate strip (such as the strip 74) is applied, extends beyond the scope of the original application, on one hand, as such an embodiment offers no longer a solution to be solved by the invention and, on the other hand, as such

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an embodiment in itself is not described in the original application.

Thus, claim 14 has been granted unjustified. Further, it is also clear that the characteristic of claim 14 is not new in view of the fact that the application of a strip or lip which is made in one piece with the panel and, besides, also shows the characteristics of claim 1, is known from the aforementioned patent documents DE 29.17.025 and DE 7402354, as well as from the "scarf" connection represented in WEBSTER'S.



DE 7402354

scarf' (skärf) n. pl.  
 scarfs 1 In carpentry, a lapped joint made as by notching two timbers at the ends, and bolting them together so as to form one continuous piece without increased thickness; also scarf joint. 2 The notched end of either of the timbers so cut. 3 A cut or incision in the blubber of a whale. — v.t. 1 To unite with a scarf joint. 2 To cut a scarf in. {? <ON skärf a notch in a timber}

TYPES OF SCARF JOINTS

WEBSTER'S

Moreover, the characteristic of claim 14 is also known from the aforementioned documents GB 2.256.023 and US 4.426.820, as a result of which this characteristic is not inventive, either.

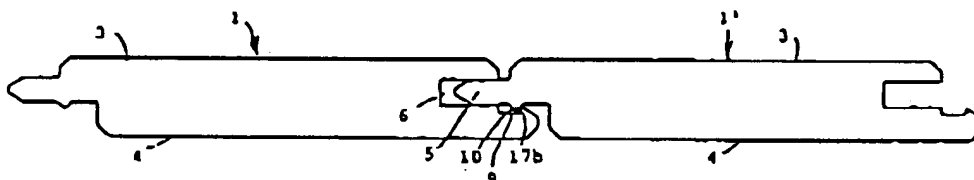
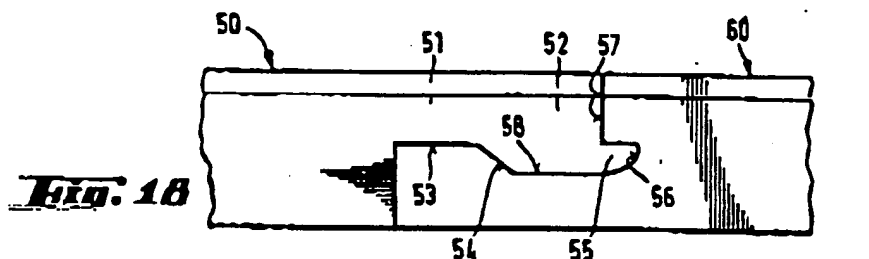


FIGURE 5.

GB 2.256.023



US 4.426.820

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Finally, considering claim 14, it is noted that the patent text contains no information for a skilled person at all which describes how the one-piece strip 6, in the case of thin floor panels, has to be realized in case the strip 74 is omitted.

It is not evident that, in such case, the thus remaining flat and weak strip 6 in practice still might function as a joining strip.

As far as the patent relates to a strip which is made in one piece with the panel and does not comprise an additional strip 74, it is noted that this is not described in a sufficiently clear way in order to be realized in thin floor panels by a person skilled in the art.

In this respect, the description does not comply with Article 83 EPC.

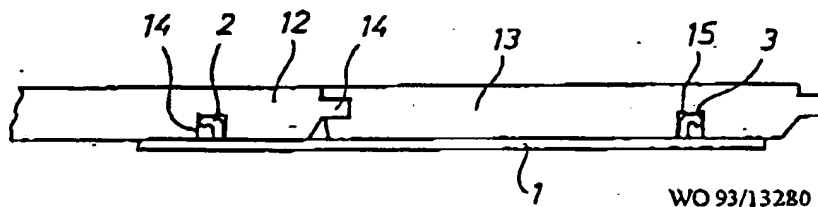
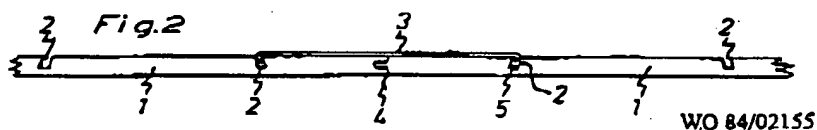
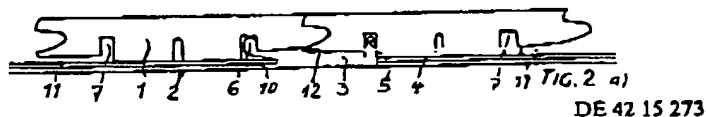


Claim 15

The fact that the locking element 8 consists of an edge extending continuously along the strip 6 neither is new, inventive, respectively, in view of the aforementioned documents DE 29.17.025, BE 417.526, GB 2.256.023, US 4.426.820 and others.

Claim 16

The use of a plurality of locking elements 8 spaced apart in respect to each other is a fact which is known in itself from the state of the art described in the documents DE 42.15.273, WO 84/02155 and WO 93/13280.

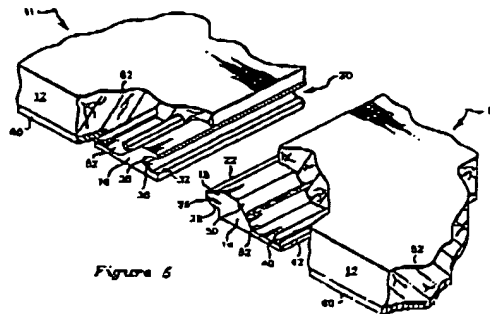
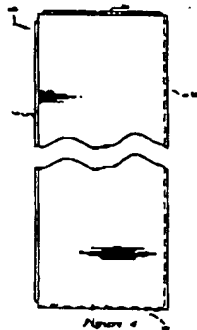


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Hereby, documents are concerned whereby loose coupling parts are applied. It is, however, evident that such coupling parts provided at a mutual distance also can be attached fixedly at the panels.

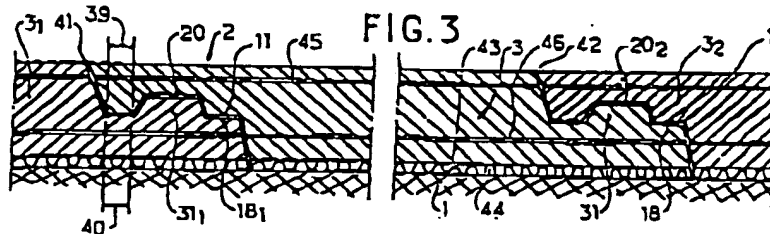
### Claim 17

Claim 17 relates to the fact that the panels can be coupled to each other at the four sides by means of the aforementioned locking elements. This characteristic, too, is trivial and not inventive in consideration of the fact that it is generally known to provide floor panels with locking elements at their four sides. To this end, we refer to the figures of, for example, the patent documents CH 200.949, DE 25.02.992, DE 26.16.077, DE 8604004, FR 1.293.043, FR 2.568.295, GB 424.057, US 4.426.820 and US 5.295.341 (the latter is represented here below by way of example).



### Claim 18

The characteristic of fixing an underlay under the panels is known from the French patent application No. 2.568.295. Herein, figure 3 clearly shows the use of such an underlay 44.



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The fact that such an underlay is applied in a floor panel, as described in the European patent in question, in itself does not result in an additional special effect, from which it is evident that this, then, is not inventive, either.

Also, the fact that felt, foamed material or the like is used for the underlay is not inventive, either. According to the document FR 2.568.295, also use is made of a deformable material, which in fact provides the same effect as felt, foamed material or the like.

Claim 19

This claim relates to the fact that the underlay extends at least up to the locking element 8, such that the edge of the underlay is shifted in respect to the actual edges 3-4 of the panels.

This characteristic unambiguously can be found in the above-represented figure 3 of FR 2.568.295 and, consequently, is not inventive, either.

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Claim 20

The use of a sealing strip is not inventive, either, as it has been known before to apply a strip between coupled panels. Examples thereof are, for example, the strips 30 and 31, as represented in the drawings of GB 2.117.813.

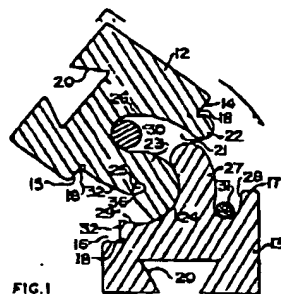


FIG. 1

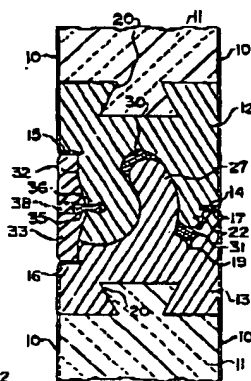
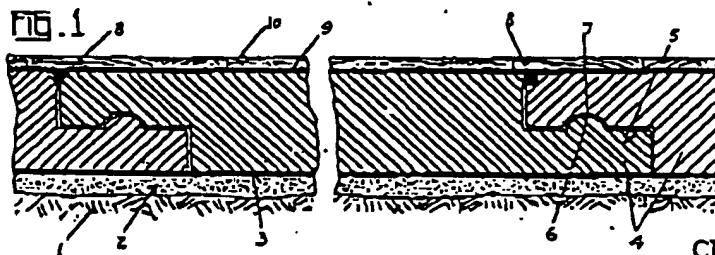


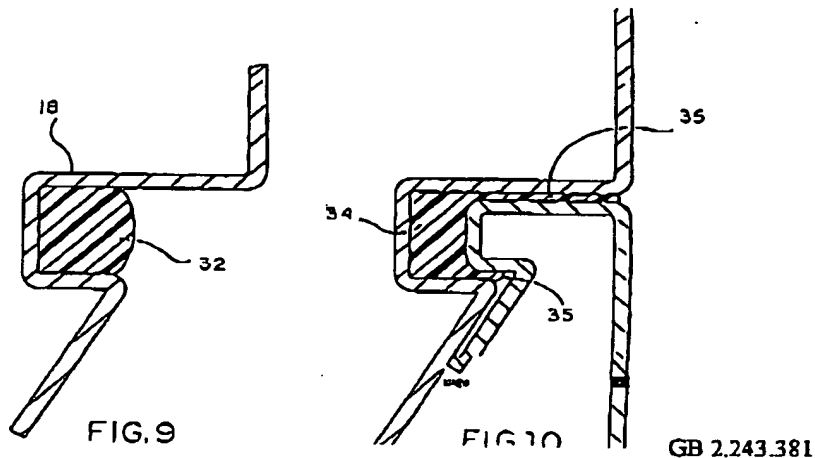
FIG. 2

GB 2.117.813

The use of sealing strips or sealing compounds is also known from the patent documents CH 200.949 (binding agent in groove 8) and GB 2.243.381 (sealing 32).



CH 200.949



### Claims 21 and 22

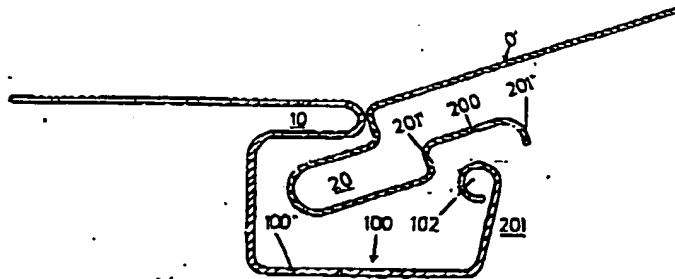
These claims have been added later to the patent application and are exclusively based on the figures thereof.

In the description of the originally filed patent application, it is nowhere stated explicitly that the invention has to be seen in the fact that the locking means are realized in such a manner that they can remain in contact at their upper edges when turning them together, apart respectively.

Thus, the scope of these claims extends beyond the scope of the original description. According to the European Patent Convention, these claims thus are invalid.

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Moreover, the fact that the panels during turning can be held in contact at their upper edges, is not new as this obviously is known from the document DE 29.17.025:



DE 29.17.025

Couplings providing for a locking in two directions and allowing for the panels to remain with their edges in contact when being turned apart, are also known from the following publications: WEBSTER'S; BE 417.526, DE 30.41.781, DE 42.15.273, DE 7402354, GB 2.117.813 and GB 2.243.381 and US 4.426.820, resulting in that no longer any inventivity can be claimed.

## V. FINAL OBSERVATIONS

It is noted that VÄLINGE ALUMINIUM AB, during the granting procedure of EP 0.698.162, tried to broaden the extent of protection of claim 1 by removing the aforementioned characteristic d), in other words, the feature of the play, from the claim. The examiner did not permit this as, in his opinion, there is no base in the originally filed patent application for embodiments without play. To this end, we refer to the examination rapport of October 31st, 1997, from which we cite the following:

"The amendments filed with the letter dated 26.06.1997 introduce subject-matter which extends beyond the content of the application as filed, contrary to Article 123(2)EPC.

The amendment concerned is the deletion of an essential feature of claim 1.

In the originally filed claim 1, it was stated that the panels, when joined together, have play so as to be able to occupy a relative position in the "second" direction.

This feature characterised claim 1 over the closest prior art, SE-A-450 141.

The deletion of this feature contravenes Article 123(2)EPC, as there is no disclosure in the originally filed application that this feature is not an essential feature.

It is consistently presented as an essential feature. Furthermore, by deleting this feature, the subject matter of claim 1 appears to no longer support an inventive step."

The examiner is unambiguously right in this matter: when reading the originally filed text, it is obvious that the aforementioned play is an essential element which can not be omitted from any of the described forms of embodiment.

**VI. GENERAL CONCLUSION**

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The European patent EP 0.698.162 has to be regarded as invalid:

a) as none of the claims 1 to 22 of this patent complies to the requirements of novelty and/or inventive step stipulated by the European Patent Convention;

b) as the extent of protection of several claims is not based on the contents of the patent application, as originally filed.

c) as the invention, in certain respects, is not described in a manner sufficiently clear in order to be realized by a person skilled in the art.

For these reasons, we hereby request, in the name of our clients, that the European patent EP 0.698.162 is revoked in its entirety.

Antwerp, January 4th, 1999



E. Donné, M.Sc.

European Patent Attorney